

THE MEDICAL AND SURGICAL REPORTER.

No. 806.]

PHILADELPHIA, AUGUST 10, 1872. [VOL. XXVII.—No. 6.

ORIGINAL DEPARTMENT.

COMMUNICATIONS.

THE LATE EPIDEMIC IN HARRISBURG, PA.

By E. H. COOVER, M. D.,
Of Harrisburg, Pa.

About the middle of December, 1871, diarrhoea became prevalent in our city and surrounding neighborhood. We soon observed something peculiar in the manner of attack and in the course of the disease. All cases did not begin alike, different patients exhibiting different symptoms, and the disease pursuing a different course; yet we could not fail to observe a striking similarity throughout. Some patients experienced fearful cramps before the diarrhoea set in; others were free from pain till after the diarrhoea had commenced; others, again, would have diarrhoea for a week or ten days, became very much debilitated, and experienced no pain. As a general thing, however, patients were troubled with more or less pain in the stomach and bowels till they were convalescing.

We occasionally met with a dysenteric complication; in such cases there would be much uneasiness in the lower bowels (tenesmus), with some blood mixed in every stool. Nausea and vomiting likewise attended many cases, and were in some instances troublesome to control. Although a marked difference was observable in many of the first symptoms, in the nature and character of the stools there was none. All had copious stools pouring from the bowels, of a milky and soot-like appearance, emitting an intense smell differing from any-

thing heretofore experienced in my practice. Even the escape of wind from the bowels, which was a noticeable feature in every case, rendered the atmosphere of the room intolerable. The abdomen was not tympanitic, yet there was a great deal of flatulency, which continued for several days after the stools had become natural in appearance and consistency. The patient seemed to have but little control in the lower bowels. When a disposition to stool was felt, nature's call had to be obeyed or the stool would pass involuntarily. Many patients on waking up in the morning discovered that they had stooled while in an unconscious state, yet would not seem very sick, and perhaps go about their usual avocations during the day. It was not safe to urinate unless prepared to stool, and *vice versa*, as there was little control over the parts. In several instances I was compelled to use the catheter for several days, whilst others were relieved by a sitz-bath. There was in nearly every case an unusual weakness experienced in the muscles of the abdomen, hips and thighs; this was a very marked symptom, no matter how mild the attack. The number of stools differed very much in different patients, ranging from ten to forty every twenty-four hours.

Treatment.—Our treatment consisted in rest, diet, and restoring the functions of the liver; this accomplished, the case was comparatively easy to manage. I first prescribed some calomel and morphine every two hours for twelve or fourteen hours, then followed with castor oil, one tablespoonful, laudanum, ten drops, this to be repeated every two or three hours until the bowels

were moved, after which I generally administered small doses of sulph. morphia in solution, which seemed to quiet the bowels, ease the pain, and allow the patient rest. This dose repeated as often as the patient experienced pain in the bowels, would arrest the stool, and I found that if held so for twenty-four or thirty-six hours the stool would be of natural consistence and appearance. In cases attended with great relaxation, we employed astringents, such as tannic acid with opium, or catechu and kino with tr. of opium, etc., which proved very efficient in many cases. I also employed, with the most gratifying success:—

R.—Syrup of ginger,	f.℥ij.
Tr. of opium,	f.℥j.
Oil of cloves,	gtssxxv.
Oil of cinnamon,	gtssxxv.
Syrup of rhubarb,	f.℥ij. M.

Dose—One dessert spoonful every two or three hours. This remedy seemed to ease the pain, check the action of the bowels and allay the sickness at the stomach that accompanied so many of the cases. Stimulants did much to insure the speedy recovery of the patient. Tonics, such as mur. tinct. of iron, and quinine, did much to build up the patient, and bismuth sub. nit. would always control acidity of the stomach. When the lower bowels seemed to be the seat of the disease, and the patient suffered much distress, I found warm water injections to allay and quiet irritation for twenty-four or thirty-six hours; in many instances a radical cure was effected by the use of this remedy alone. In other cases I used injections of sulph. of zinc and laudanum with starch gruel. Suppositories made of opium and acetate of lead would often quiet the bowels for a period of twenty-four hours, and greatly benefit the patient.

Diet.—We allowed nothing but a binding diet; solid food seemed like poison to the stomach for several days. Brown flour soup, oyster soup, with grated crackers, toast and milk were well borne and used freely. While suffering from the disease myself, I found that my stomach would reject an oyster but retain the soup; I enjoyed a good appetite all the while, rested well at night, and attended to the medical wants of my patients during the day; this, however, could not be done where the diarrhoea was attended with the abdominal pains.

As to the cause that gave rise to this epidemic in our midst, there is still much con-

troversy. I am not of the opinion, however, that it was the result of impure water, because careful investigation has disclosed the fact that our water is as pure as that usually obtained from reservoirs. I am convinced that it was an atmospheric disease.

ON RETENTION OF URINE.

Read before the Melgs and Mason Academy of Medicine, 16th May, 1872,

By A. L. KNIGHT, M. D.

Simple retention of urine, to the close observer at the bedside, is presumed to be easily and readily recognized. Yet this is not the exact truth. The disease is not always so well marked with prominent symptoms as even creditable authors would have us believe.

Owing to the susceptibility of the bladder to distend by degrees to enormous dimensions, with comparatively little pain, at least where a portion of the renal secretion is voided, or even dribbled away, the vessel having arrived to a certain degree of distension, often becomes anæsthetically paralyzed, and the suffering, which may or may not have been very acute and agonizing in the initiatory stage, by degrees comes to be tolerated. This state might continue an indefinite period, supposing a moderate discharge of urine meanwhile to be going on. But upon complete retention, the organ would necessarily become excited by the acridity from the decomposition of its contents, when pain would be provoked by or from the double source of irritation, or rather inflammation, and the continued distension of the organ, thus rendered highly sensitive. The accumulating fluid and evolved gases would bring the true state of the case prominently before us. Yet possibly it still might be hid or modified by the natural tolerance of the over-taxed vesicle, until the case is beyond remedial aid.

The extent to which this organ has been known to distend is almost incredible. Instances are not wanting, if we may credit the records, where this condition of the bladder in an uninfamed state has been mistaken for abdominal dropsy, and in several instances actually punctured through the abdominal wall, under this mistaken diagnosis, where the bladder has been found to contain from twenty to thirty pounds of fluid, or even greater. These cases, so reported, of course could not elicit our belief

did not their histories, so far as given, inform us that in all there was invariably slight micturition. This imperfect or partial voiding of the urine is doubtless the cause of practitioners making these unpardonable blunders, under the impression that the scanty flow is due to inordinate or lessened renal function. I have no doubt that similar blunders are frequent at the present day.

The voiding of the larger portion of the secretion does more than simply lull the apprehensions of the attendant; it doubtless prevents septicæmia within or arising within the bladder, and perhaps also uræmia. This is the only theory that I can offer in these extraordinary and prolonged cases of retention; and admitting the fact of the existence of such cases, it is to my mind questionable, unless they have a partial voiding of the urine. Should these be considered partial retention? If we so regarded it, I cannot see that it would comfort us; for they require no less promptitude in their investigation and treatment. Besides, the clinical experience of the profession shows that all and every form of ischuria is fraught with danger; and that which should strike us with apprehension is that this condition has its threatening attitudes throughout its various phases and forms; the patient being *in articulo mortis*, as it were, until relief is had.

The treatment for the immediate relief rests almost entirely upon an efficient use of the catheter. Some precede this with bougies of greater or less size, as the case may require. I cannot say that I am partial to this latter mode of treatment. The catheter employed in most cases, and recommended by modern surgeons, should be metallic, and, I might add, of large size, unless the ischuria be from stricture, when perhaps small ones, or bougies, would answer better.

I do not propose to discuss the various manipulations necessary in the special use of the catheter in these cases, presuming that all are well versed in that; but the preference for the silver catheter is easily seen, when we consider the multiplicity of causes that enter into the production of this disease; for instance, tumors arising contiguous to the urethra may so distort it that an ordinary flexible catheter would as likely bend upon itself as to bend in adaptation to the crooked or distorted canal. If it be

stiffened with a wire, and manipulated, as you will have frequent necessity, there is danger of thrusting the wire through the apex of the catheter, and injuring the parts before you are aware of the mishap to your catheter. In old subjects, perhaps, enlargement of the prostate is the most frequent source of this affection. If I remember rightly, Professor Gross remarks that the enlargement of either lobe of this gland will induce retention, and that where but one lobe is the seat of enlargement, the canal will be flexed correspondingly to the enlarged lobe.

I do not know that the above quotation is correct, not having Professor Gross' book on the Urinary Organs at hand. However, I believe the proposition is true; and it is well to bear this fact in mind when manipulating for relief. I think the above-named surgeon very properly recommends a suspension of the small force used in introducing the instrument when it meets with resistance at that point of the urethra, and proposes that the left index-finger be introduced within the rectum to the prostate gland, so as to guide the point of the instrument in its further introduction.

I am satisfied that, for want of this precautionary procedure, unfortunates have suffered the consequences of rude practice; if not irreparable injury. Your essayist has the stigma of one of these incautious proceedings, in which his patient lost a considerable quantity of blood, besides the provoking of an unnecessary amount of pain and inflammation, the sequence of which I need not here state.

Another very necessary item in the treatment is the complete emptying of the bladder, and this can only be done, especially where any prolapsus of the organ exists, by depressing the point of the catheter, and placing the patient upon his abdomen. I have seen old and broken-down subjects become uræmic, and sink into a comatose state, in which they died, where the vesicle was apparently emptied twice daily. Now I believe that the life of those patients could have been prolonged had this precaution been taken, for I think that they were poisoned by the decomposition of the urine left behind at each operation.

Another cause, and difficult to relieve, is a thrombus or coagulum in the canal, from hemorrhage of the vesicle, kidneys, or from the urethra itself, called sometimes urethro-

thromboids. If these coagula be in the neighborhood of the prostate, it is often very difficult to determine, especially if we find this gland, by rectal examination, enlarged simultaneously with the thrombus. Here an inexperienced party might "prod" for an indefinite time without reporting "progress." In such a case, where the obstruction is not understood, it is better, having tried the instrument, cautiously and mildly, as before directed, to withdraw it, when there will generally be found evidence of clot, having the appearance of extravasated blood, somewhat broken down by the lapse of time since its outpouring, differing in this respect from any bleeding caused by the recent introduction of the catheter. This condition can only be overcome by a patient syringing with water as warm as can be borne, aided with an exhausting syringe and a large eyeleted catheter. If the clot be of slight extent we can usually succeed in this way. These directions are made with reference to such a case. If the clot is very extensive, and the demand for immediate evacuation urgent, the knife or stylet, and canula, one or the other, must be used.

And it should be remembered that coagula in the urethra is always a dangerous condition, indicating other forms of disease behind the immediate trouble. Neither have we any means of knowing at the time from whence the hemorrhage is. As before remarked, it may be from the kidneys, bladder, or urethra, and after having relieved the present difficulty, other treatment and conditions involved in these cases will be necessary, which we cannot here discuss.

I remarked that tumors were sometimes a cause of retention, as also abscesses. These may be either within or without the urethra; if the latter, relief is had by the use of the knife, which must be resorted to if the canal is much impinged upon and distorted. Perhaps it is the better practice to evacuate all pelvic tumors, even if they be not in the way of the introduction of the instrument to the bladder, if they be in a state of suppuration, or even inflammation, leading to that condition.

Tumors that arise within the canal, which they may do at any point, can sometimes be overcome, if not too indurated, without much difficulty. Size, of course, enters into the obstruction, as well as induration. These often become a complete barrier to the egress of any instrument in the form of catheters.

Various medicated unguents and lubricators are recommended for this, with a view, perhaps, of aiding, in addition to the introduction of the catheter, suppuration of the tumors. Nitrate of silver has been tried. I fail to see any advantage in this. I would give the preference to a well-directed and forcible distension of the canal, with a large bougie, well tapered at the point. This would, in all the yielding portion of the canal, push the tumors aside. Then follow with a moderately large catheter, after which I would divide the tumors with the urethrotome, from time to time, until suppuration is induced, aided by stimulating unguents. Then they become subjects for other forms of treatment, not necessary to enter into.

I will say, however, before leaving this part of the subject, that should the urethral tumor be situated near the prostatic portion of the canal, in which we should likely have an inflammatory condition of this gland, I should not be inclined to adopt the plan just recommended, even in those in which we would not suspect chronic enlargement, for I believe that even temporary inflammation in or near this gland may result in hypertrophy. Hence we must avoid all irritation, allowing the exigency of the case to modify our course of treatment. Here the urethrotome is required. Scarifications, topical bleeding, warm fomentations, and anodynes, should be used as adjuncts, and thoroughly persisted in until a free discharge from the parts is had, to insure success.

There are other causes for this form of ischuria, less grave, however, such as inspissated mucus, prolapsus uteri and flexions of this organ, a distended and impacted rectum, hemorrhoidal tumors, calculi, etc. The first of these can be overcome by the catheter, in the same manner as directed for coagula, and perhaps with greater ease.

Where the uterus, by its flexion, etc., is the cause, manipulations, with the use of the uterine sound and catheter, will succeed with little difficulty. An impacted or swollen rectum might, unquestionably, prevent the flow of urine, or the passage of the catheter or bougie, as also the introduction of the index-finger within the bowel. There we must use chloroform, and remove the impediment, prior to any further attempt at catheterization. The last named cause I shall not for the present discuss.

COTTON AS A SURGICAL DRESSING.

BY F. K. BAILEY, M. D.,
Knoxville, Tenn.

We see an occasional reference of late to cotton as a surgical appliance. As an application to burns and scalds it has been employed for many years, both by medical men and in the domestic practice of families.

In the *American Journal of Medical Sciences*, for October, 1871, is an article by M. Guerin, upon the employment of cotton in dressing wounds. He applies a thick covering of cotton, so as to prevent, by filtration, the access to the morbid surface of the dust and germs floating in the atmosphere. This he does in admiration of the dust and germ theory of disease, as advanced by Pasteur and Tyndall.

His mode is to wrap around a stump, for example, successive layers of cotton. He uses it very freely. In amputations of the thigh he winds the cotton to the hips, and around the waist, in order to guard the approaches to the wound from above. He does not use carbolic acid in any way whatever. In the *Reporter*, for June 1, 1872, is a reference to observations by William Warren Greene, M. D., of the Medical School of Maine.

There are other allusions to the same substance, but space will not permit further quotations.

I desire to present the result of personal observation in the use of cotton, especially as an application to burnt surfaces.

Since the extensive use of steam as a motive power on water and land, explosions, under varying circumstances, have given us frequent opportunities to test our skill in dressing burns and scalds.

In October and November, 1854, there were a series of casualties upon the Chicago and Rock Island Railroad, near Joliet, in which many were scalded by the escape of steam from the locomotive, upon the engineers and firemen, as well as, in one instance, into a car filled with passengers. It was in the care of those injured persons, in connection with other medical men, that my first and only extensive observations were made in the use of cotton as a dressing.

At that time, as remarked above, the use of cotton in dressing burns was not new, but it was the manner of application, and its continuous use till healing was accomplished, that was a prominent feature.

I will state that on one occasion there were more than thirty severely scalded in one car. The injuries were so severe that the skin was blistered at every part uncovered by clothing, and in some cases the covered parts were scalded.

The first application made was cotton and linseed or olive oil. This dressing was left on as long as possible before being removed, and from necessity it remained, in some cases, longer than was thought desirable, but it was impossible to attend to so many. All that could be done was to remove the first dressing as soon as the case could be reached, and merely reapply cotton and oil. Some sank away during the first few hours, and out of thirty-two, sixteen eventually died.

The dressings were removed and reapplied each day, as often as the exigencies of each case demanded, but cotton alone was used, except upon the face, where old, soft linen was substituted. In nearly every case the face was extensively burned, and it was necessary to so cut and shape the pieces of cloth as to make a mask.

There was one point observed in the redressing of the suppurating surfaces in these cases, which was to let remain any and all fibres of the cotton which had become adherent, removing only such as were loose or saturated with fresh pus.

By observing this, there soon formed a crust or scab, made up of cotton and the purulent secretion, which served as a protection to the suppurating surface. Should any pus subsequently form under this crust, it was evacuated by making an opening in the centre, or gently raising one edge of the crust, if it chanced to be at all loose. In cases of sloughing or deep ulceration, it was necessary to remove the whole dressing, as the pus was so abundant as to keep it loose. Again, there was little or no water used in dressing these cases, the surplus pus being merely wiped off, or simply absorbed by a soft cloth laid on, without any wiping.

Stimulants, tonics, and plenty of animal food were given in order to support the strength.

In regard to any specific influence which cotton may exert in preventing the access of dust or any germs which may be floating in the air, no discussion will be undertaken. Of the practical benefits from its use no one can entertain a doubt who has tried it.

If I recollect rightly, there is a tradition-

any impression in some parts of our country that cotton is injurious to a sore, or "poison," to quote the language. It is but a few years since lint was ignored by many, unless scraped from *linen*; cotton was avoided as poisonous, or at least, not as good as linen. I think this notion may have obtained from the fact that our national ideas of surgery originally came from Europe, at a period when linen was almost the only textile material used, and that lint was made from that alone.

From all my own observation to the present time, I am more and more satisfied that cotton is unexcelled as a dressing for suppurating surfaces, however caused. Since the introduction of carbolic acid into use as a surgical appliance, the use of cotton has been enhanced.

A few weeks since I was called to see a child less than two years old, who had pulled a cup of hot coffee upon its arm. The cuticle was removed the whole distance from the middle of the arm to the wrist; besides, there were blistered spots upon the neck and shoulder. I at once wrapped the whole member in cotton wet with a solution of carbolic acid. The first removal of dressings was in forty-eight hours, when the whole burnt surface was denuded of cuticle, but not in the least inflamed. In less than ten days the whole was healed, and the child never cried from the injury after the first dressing had been applied fifteen minutes. After the second dressing, no attention at all was required but to keep the arm clean. If there is anything real in the dust and germ theory, certainly there is an efficient auxiliary to cotton in the external use of carbolic acid. I am confirmed more and more every day, not only from personal observation, but the published reports of others, in the valuable properties it possesses.

I will here remark, that the idea of forming an eschar, by means of cotton, upon the surface of a suppurating sore, was first suggested to my mind by Dr. A. L. McArthur, who, in 1854, was prominently engaged in the care of those who were scalded.

Any one in dressing extensive burns from steam will find that as each succeeding dressing of cotton is removed, more or less fibres will become adherent through the drying of pus. Let all such remain, and re-apply the cotton to the raw surface. Soon it will be found that the whole surface will be thus covered. This will be particularly

noticed if carbolic acid is used, as that serves to diminish the amount of pus secreted, or to use a common expression, "dry up a sore." Wadding split, and the inside surface applied to the sore, is best, as the glazing serves to preserve its continuity.

AN INTERESTING CASE IN OBSTETRICS.

BY GEORGE M. ROMIG, M. D.,

Of Allentown, Pa.

I was called to attend Mrs. R., in labor with her first child. Upon examination, found that my finger was opposed in its progress through the vagina, about two and a half inches from the entrance, by a dense membranous partition. All search for some possible passage proved futile. The gravid uterus could, however, be felt above, and the foetal head was forced down into the cavity of the pelvis during a pain. It being the early stage of labor, the patient was left, with the request of further notice if the pains should increase. Again summoned in the evening, the condition of things about the same, and I was now convinced that the case was one of unruptured hymen. On a third visit, labor had not made much progress. After frequent and careful examinations, the edges of the os were discovered and felt through the membrane, dilated to about the size of a silver quarter dollar. As the pains increased, free dilatation ensued, the head advancing through it, and now pressed slightly on the membrane. Still believing there must be some slight opening somewhere, I continued searching, and of a sudden was aware that the convexity of my finger nail was in a slight depression.

I forgot to mention that, upon closely questioning the patient in reference to menstruation, and the husband in reference to coition, the reply was that she had always menstruated regularly, and that no difficulty had been experienced. As labor advanced, the head, descending more and more, began to distend the membrane, and hoping that it might be ruptured with the finger nail, I commenced scraping briskly, taking as the point of operation the depression above mentioned. After persistent and forcible effort it yielded, and gradually an opening was effected large enough to admit the finger. Having got so far, the operation was completed by tearing it freely in every

direction; but I found that even after this, the opening was no larger than the os when about two-thirds dilated, and that its edges presented a firm, resisting band; however, that caused no more anxiety, knowing that when the head became firmly engaged in it, it would soon yield. This followed, but very slowly. The second stage proved very tedious, and eventually labor was terminated successfully with the forceps.

MEDICAL SOCIETIES.

REPORT ON MEDICAL CHEMISTRY,

By J. B. HOUGH, M. D.,

Professor of Physics and Chemistry in Miami Valley Institute.

Read before the Ohio State Medical Society, June 12th, 1872.

[Reported by J. W. HADDOCK, M. D.]

"Since we can become conscious of a phenomenon only by some change wrought in us, every phenomenon necessarily implies redistribution of force—change in the arrangements of matter and motion."—HERBERT SPENCER, "*Classification of Sciences*."

At a meeting of the *Ohio State Medical Society*, held in the city of Columbus, June 8, 9, and 10, 1869, the following action was taken:—

"Resolved, That a committee of — be appointed, for the purpose of reporting upon the propriety of recognizing *Medical Chemistry* as an essential element of a medical education."

The committee to whom was referred the above resolution begs leave to report as follows:—

A short time previous to the meeting referred to, the writer had called attention,* in an article which was copied into leading Eastern journals, to the importance of reform in this direction.

As the article was but a short paragraph, the liberty is taken of embodying the same in this report:—

"While every medical school recognizes the importance of, and provides the apparatus and reagents necessary for the demonstration of the facts and principles of *Elementary Chemistry*, very few of our institutions make any provision enabling or requiring our students to become *practically* educated even in the merest elements of the science; and still less in those departments most essentially related to the science of *Medicine and Surgery*.

"Very few schools recognize such a department as *Medical Chemistry*, either theoretical or practical, and yet no department will

yield a larger dividend to either the college or its alumni.

"So thoroughly convinced of this fact are the schools and students that have taken a pioneer step in this direction, that they would as soon, nay rather, dispense with almost any other chair. Certain preparatory educational qualifications are required for admission into all our medical colleges, not because they are considered a *part* of a medical education, but because they are an indispensable *means* to a certain *end*. Would it not be every whit as rational for us to establish in every medical college a Professor of Languages, and then stop there, requiring no oral or written drills, examinations, or theses, as to have a Professor of *Elementary Chemistry*, and go no further than this, requiring of our graduates nothing more nor less than the same identical chemical education that we would recommend to our dyers, distillers, and manufacturers? If the *elementary* or the *applied* science must one or the other be omitted in a medical collegiate course, had it not better be the former, letting it come in as a preparatory qualification, so that the time of the course can be devoted to its *practical application* in medicine? But there is no need of dispensing with *either*. A certain moderate proficiency in *practical chemistry*, both *general* and *medical*, can and should be one of the conditions of graduation. It is not incompatible with the circumstances of any school or student otherwise successful. While medical colleges are generally moving in the way of reform, it is ardently hoped that this subject, among others, will not be overlooked.

"The physician who has even a moderate proficiency in this line is in possession of advantages second to no other item of qualifications. To him formulae and processes are matters of convenience, not of necessity. He is independent, if he choose to be so, of careless, incompetent, or dishonest apothecaries. Phenomena that reveal nothing to others, or give rise to nothing but trouble or perplexity, may be to him the finger-post that shall point him not only to the means of saving lives that might otherwise be lost, but also to that goal of every noble-minded physician's ambition, a high degree of success, and well-merited eminence. Practical pharmacists well know that their *reliable* preparations find their way into the hands of those who know enough of chemical tests to protect their own interests. A *very large* proportion of the drugs prescribed and dispensed are only mere compromises of what they should be, sufficient only to gratify the wishes, but not to supply the wants of those who use them.

"Whenever those who use or prescribe medicines under their own personal responsibility are sufficiently posted in practical tests to protect themselves from imposition, then, and not until then, will reliable drugs be the rule instead of the exception. The amount of actual chemical knowledge obtained and retained by the mass of medical students who "graduate" without any

* Cincinnati *Lancet and Observer*, August, 1868.

course of practical drill amounts necessarily to just about nothing at all.

"Many retain a vague remembrance of elements, equivalents, and even some of the general laws of affinity; but what is their knowledge to them more than a mass of verbiage?"

"Though they may have been students of the highest natural capacity, and may have attended the finest and ablest of lectures, still they find it about like learning to swim without going near the water.

"No wonder the value of chemical science is underrated even by the medical profession. It is one of those things that can be appreciated only as they are understood."

There seems to be, however, a general willingness to admit that chemical processes are competent to grapple with abstruse and delicate problems, and to originate wonderful and beautiful experiments; but when it is proposed to direct by its aid the everyday business of a medical practice, most physicians are exceedingly skeptical! All are willing to admit the ability of the analyst to detect the thousandth part of a fatal dose of almost any poison; none dispute that fermentation is impossible in presence of the merest trace of certain chemical agents; all agree that heat or acids will coagulate albumen; that tannin precipitates gelatin; that pepsin dissolves vegetable and animal tissues; that air or oxygen hastens, while caustic alkalis retard or prevent the coagulation of blood; and still they doubt the value of chemical evidence in the investigation of physiological and pathological processes! Every process in nature, terrestrial and celestial, vital as well as non-vital, physiological, pathological, or therapeutic, is merely a change in the arrangement of matter and force. It has been customary to classify all motions as mechanical and chemical. The terms molar and molecular have also been used; and though it was formerly thought that the line of demarcation was distinct, and easily drawn, it is now known that the phenomena and laws of one class of motions are in the main applicable to the other, and a middle ground exists, for which the terms Molecular Physics, Molecular Mechanics, Chemical Physics, etc., have been variously proposed. In fact, the different departments of physical science are so intimately related that the distinctive names applied to them are often conveniences rather than necessary terms, representing natural divisions; and when we use the term *Medical Chemistry* we wish to be understood as including under that term all that range of topics necessary to form a complete, connected system.

It may be claimed by some that there is little or no demand for any such complete system; but whatever truth there may be in such claim, it cannot be thought that we have no need of it. Had steamboats, railroads, and telegraphs, been withheld until a demand called them into existence, we had been without them to-day.

Utility creates its own demand. An im-

mense mass of useful knowledge relating mutually to Physics, Chemistry, and Medicine, is now "lying about loose." Why not embody it under some individual form? No matter, perhaps, whether we call it Medical Philosophy or Medical Chemistry. The inquiry comes from within and without the profession, "Have we a Medical Philosophy?" Assuredly, if we have not, it is time we had! *All truths* harmonize. Every true science necessarily harmonizes with every other true science. If any contradiction occurs between any two, one or the other must necessarily be false; for one truth cannot contradict any other truth. Now there are certain immense strides that have been made in the physical sciences in the last quarter of a century, that have scarcely begun to react upon the medical profession.

Foremost among these is one that enters as a common factor in all the phenomena of nature,

"The Persistence of Force."

This cardinal truth, known also as

"The Interaction of Natural Forces,"

"Conservation of Energy,"

"Correlation of Force," etc.,

Is admitted on all sides to have an application as wide as the range of human thought. A truth "Deeper than demonstration—deeper even than definite cognition—deeper as the very nature of mind." "Its authority transcends all other whatever; for not only is it given in the constitution of our own consciousness, but it is impossible to imagine a consciousness so constituted as not to give it." "The sole truth which transcends experience by underlying it."*

It would be out of place in this paper to elucidate the great doctrine referred to, but we may safely say that upon this field is to be fought the final battle of Truth against Error, and the side on which the ranks of Æsculapius stand or fall the thickest, will depend upon the course the profession takes during the next few years. The *spirit* of progress is rife enough, but it is too much disposed to run in speculative channels.

It is the spirit that nurtures "pathies" rather than pathology. It is too prone to value fictions rather than facts. While the physical sciences generally are taking a bold and rapid march onward in this line of truth, shall medical science loiter by the wayside, leaving its deserters here and there to swell the ranks of charlatans and quacks, those ghouls that feed on putrifying ignorance? We believe that the greatest influence that we can ever bring to bear toward wiping out the polluting stain of quackery within and without the profession, is a thorough revision of medical teaching and text-books; bringing both fully abreast of the times, and especially in the line to which our subject refers. The tenacity with which many influential writers and teachers cling to old books and obsolete ideas is astonishing. It is high time that those in high places should

* Herbert Spencer.

make a clean sweep of all the rubbish, and place Medicine in the front rank of those sciences whose Alma Mater she has been. Assuredly if we do not do it, quackery, with its pseudo science, will gull the public into the belief that it is doing what we are neglecting. Let it not be understood that we are making a sweeping complaint against medical teaching.

Most of it is admirable. Nor that we disparage the mass of truth, the product of centuries of labor and observation. Our objections are taken to the faults of omission, most of which would be covered by a comprehensive system of Medical Chemistry. The student is taught that a given bone has a given articulation, and is moved in a given direction by a given set of muscles; but is he required to learn that muscular contraction is the correlated expression of chemical change? Perhaps he is befogged by a superstitious faith in the dogma of a "vital force." If so, he must submit to be led by an unseen fatality which he imagines to be independent of matter and physical laws! If the chemist has shown that there is no such thing as "vital force," or at least, no reasonable evidence of its existence, why continue to nourish it as a pet fiction of the brain? If it have no foundation in physical nature, the ravings of delirium, which also are creatures of the brain, have an equal claim on our credulity. But has the chemist done all this? Has he not, by directing the known physical force, already built up hundreds of those organic compounds that were, and still are, by many, taught to be the special products of a "vital force"? "Of the three great classes of organic compounds, the oleaginous, the saccharine, and the albuminous, the first is completely under his power, and the second partially so." How long it will be before the other half is accomplished we know not, but dare not venture the dictum that the same intellects that sought out thus much of the hidden ways of nature are powerless to go further. Instead of concealing our ignorance under a very doubtful hypothesis by explaining the relations of diseases and remedies to the nervous system and the fictitious energy invented for that purpose, let us study the relations of food and medicine to the animal forces, and the relations of these to other known varieties of energy. But we must be cautious about believing every dictum, whether in harmony with experience or not. The great thinkers sometimes err. The same man that taught that nitrogenous food was the source of muscular power, and non-nitrogenous food the fuel that generates animal heat, said also, "Show me the man who never errs and I will show you the man who accomplishes nothing." When Tick and his associates questioned nature on this point, she answered that the work done is three times as much as the oxidation of the nitrogenous tissues could possibly supply, and that muscular force as well as heat is mainly dependent upon the carbon consumed as fuel: So that vegetable and animal

tissues act only as machines for converting the forces of inorganic into those of organic nature.

Progress in every department of science depends upon the accumulation of facts; in the storing up of these we are building up experience, but it is only by the elaboration of these into truths that we establish those general principles which alone constitute the basis of all true science. It is no misfortune then that Medicine is to a great extent empirical. But we must not forget that this element does not yet constitute true science. It is a mass of raw material waiting to be wrought into science. Science is the relation not the summation of experience.

It is not thought necessary to give here even a brief outline of what Medical Chemistry should include, or what it may be expected to accomplish. Its claims are set up on general principles.

However, there is one line of research that might, for the present at least, be profitably included. Microscopy in its application to Medicine is largely dependent upon chemical tests, for which and other reasons a practical knowledge of the construction and use of the microscope might justly be communicated through this channel. Here and there a school makes some provision for microscopical manipulation, and a very few for some of the simpler medico-chemical tests. Why not unite the two, and make both more thorough and efficient? There are few chemists who are not practical microscopists as well. Some such reform must and will be brought about. The public, even the uneducated public, demands it. The strongest hold that charlatans and quacks can secure by their free and universal system of advertising is the credit they get of being the progressive and scientific prodigies they pretend to be. A neighbor of mine was seduced by one of those incendiary circulars into visiting one of the "great" city celebrities, the "CELEBRATED DR. SOANDSO." He found the waiting room "Crowded with scores of patients waiting to be made whole!" "And," said he, "when I was ushered alone into the august presence of his doctor-ship, I was perfectly convinced that I had found a great man; for there, over a furnace, was a huge boiler, with pipes coming out of both sides and both ends, and crossing each other, and doubling and twisting about over and under, and in and out, and up and down, with stop-cocks and jimmies, and elevators and perambulators running into refrigerators and duplickets, and making the all-fireddest sizzlin and fizzlin you ever heard of, and the infernal machine distilled thirty-five dollars out of me before I could take time to think." And thus it is. Science is in demand; and if we do not furnish a genuine article, the counterfeit will be supplied at our expense.

We feel like begging pardon for calling attention to a matter so obvious that its bare mention is almost a reproach.

Some, however, may insist that we might

well be satisfied with what is being done in this direction; but such opinions do us no credit.

In conclusion, then, two modifications in the course of medical education are insisted upon:—

First. Let Elementary Chemistry be required as a preparatory or under-graduate qualification; and,

Second. Make a respectable knowledge of Practical Chemistry, both general and medical, one of the conditions of graduation.

EDITORIAL DEPARTMENT.

PERISCOPE.

Rupture of the Urinary Bladder.

DR. EDWIN BENTLEY, Assistant Surgeon U. S. A., writes to the *Pacific Medical and Surgical Journal*:—

We are accustomed to associate rupture of the bladder with some mechanical injury to the bones of the pelvis, or some breach of continuity in the soft parts in immediate proximity; and while this is true in the majority of cases, rupture does occur without any wound visible to external inspection or most careful dissection. The bladder, when distended to its maximum, is liable to rupture from blows, kicks, rolling out of bed, running against a post, falling down, or by muscular action alone, without producing any external marks of violence whatever. This latter cause would be a sufficient reason to induce the prudent accoucheur to secure the evacuation of this viscus, not only in cases of instrumental labor, but in all cases, lest the powerful contractions of the abdominal muscles, in the expulsive effort, should result in this very grave accident.

At the *sectio cadaveris* the following features were noted: A medium sized man of mature life; head of a remarkably quadrangular figure; a yellowish tinge over the surface; rigor mortis well formed; pupils widely dilated, and the abdomen distended. The brain passively congested, and the bowels engorged with blood. The lungs were healthy and collapsed; no pleuritic adhesions. The heart was flaccid; the cavities were empty, and valves and vessels normal. The abdomen contained nearly two gallons of an amber-colored fluid, possessing the odor of urine. The liver firm, red, and granular, with rounded edges; spleen above the average size; kidneys congested; the stomach and intestines were healthy, and not a trace of blood or inflammation could be detected along the whole extent of the peritoneal folds. The bladder was firmly contracted, and in its upper and anterior wall was an opening large enough to receive the joint of the index finger, running nearly transversely to the organ, with slight extravasation of blood around the edges of the wound; and a full-sized catheter was readily

introduced, not alone in the bladder, but through the orifice at the apex into the cavity of the peritoneum.

During the examination the following brief history was adduced: The patient had never suffered from disease of the urinary organs, but with his bladder fully distended he fell down a flight of stairs, and soon afterwards was seized with violent pain in the hypogastric region, urgent tenesmus, and a pressing desire to micturate. A physician was called, and a catheter introduced, when a little blood and urine followed.

The following day he was admitted to the City and County Hospital, when the attending surgeon introduced a catheter without difficulty, and evacuated a quantity of urine. This was repeated for five consecutive days. On the third and fourth days after his admission he urinated voluntarily; yet the symptoms continued unabated until the sixth day, when he suddenly expired. In the absence of the usual attendant of this severe lesion, viz., peritonitis, the indications would lead to uremic poisoning as the immediate cause of death. When the laceration admits of urinary infiltration, the termination is usually rapid, although Erichsen refers to a case which continued ten days, and to three recoveries in fifty cases. In rupture from external violence, death is said to occur in from three to six days. Ruptures may arise from idiopathic causes, as paralysis of the bladder, enlargement of the prostate, from stricture of the urethra, and in the foetus from its being congenitally impervious. They have been divided into oblique, transverse, and vertical, and are usually found behind the urethra, in the posterior wall of the bladder. The strong recti muscles of the anterior wall of the abdomen are arranged with their wonderful transverse striæ, which give them increased power of resistance, as well as multiplied strength in protecting this viscus from injury, except in the inebriate, when the fibres become relaxed from the anæsthetic influence of intoxication, and they cease at once to be the guardians of the parts, and to exercise their natural expansive power. And in this way the intemperate, who are constantly exposed to falls, blows, and kicks, escape an accident that, were it not for the happy sympathy which so fre-

quently exists in the relaxation of the sphincters, I suspect would otherwise be much more frequent. In the recorded cases where the bladder has been torn without any evidence of external violence, the subjects have been intoxicated, and fallen down stairs, as in the present instance. The symptoms have been intense pain in the abdomen, urgent and usually ineffectual desire to pass water, followed by collapse, or if reaction occur, peritonitis. Not unfrequently the urine has been drawn by passing the catheter directly through the rent into the peritoneal cavity. Occasionally the patient has voided urine himself, and it is not uncommon for a little urine to escape in the attempt at defecation which the urgent and continued tenesmus produces. The prognosis is decidedly unfavorable. The treatment, after reaction and recovery from the shock, applicable to peritonitis, is usually indicated. Various surgical devices have been proposed, as the lateral operation for stone; and Mr. Solly, in the "Transactions of the Pathological Society," has recommended the puncture of the cul de sac of the peritoneum, as advised by Mr. Harrison, of Dublin.

Drunkenness and Syphilis.

Dr. C. G. WHEELHOUSE, in the *British Medical Journal*, says:—

And now, how do we, as a profession, stand with respect to these two scourges? Can we honestly lay claim to having done our best towards either prevention or cure in either of these matters? The mind of the whole nation is at last fairly roused on both subjects; the public is discussing them freely; our statesmen are canvassing them eagerly; our legislators are actively engaged in endeavoring, as far as possible, to bring the machinery of the law to bear upon both; for the feeling is abroad—widely spread through the length and breadth of the land—that to these two evils may be attributed a large share, at all events, of our diseases, of our accidents, and of the deterioration of our national health and vigor.

To us, as a profession, all parties appeal both for information and for help; and in the former case, though I regret to have to say it, yet truth compels me to admit it, we are looked to not only as helpers and advisers, but, in many cases, even as primary offenders. Nothing, I take it, can be more true than the assertion that men cannot be made sober by Act of Parliament; but is it not equally true that both men and women may be made drunken, and that only too easily, by misdirected and unwise advice? In how many of the cases of the intemperate is the evil primarily laid to the charge of the doctor? "I should never have taken to the use of wine or spirits if I had not been advised, in the first instance, by my medical man," is the excuse that has many and many a time been made to me when I have felt it my duty to speak plainly to unhappy patients on this subject; and

though I know that very often this is only an excuse, yet I cannot hide from myself the fact that, in many cases, there is a grain of truth in the assertion. Most of us have been in times past, and some are still, too much in the habit both of recklessly prescribing stimulants and of fostering the idea that they are an essential part of our allment. It is against this habit that I would make an earnest appeal. That they are often of the greatest value, and to be replaced by no other remedies, I am quite ready to admit; that without their aid many a case now saved would sink hopelessly away, we can none of us deny. Ammonia, ether, and such like substitutes, are very well sometimes, and sometimes are even of greater value than either wine or brandy; but to say that they can always take the place of these latter, is a doctrine against which all experience is emphatic, and which, I am sure, will come readily home to every one of us.

Gentlemen, I am no teetotaler, and I do not desire to speak from any teetotal platform; but I am anxious, if I can do so without impropriety, both to speak a word of wholesome warning, and also to save a class of remedies, invaluable when rightly used, from the consequences of careless administration and abuse. Let us take the subject to heart, I entreat you; and especially in the cases of the young and of females, let the prescription of alcohol in any form be a matter of as serious consideration as that of opium or of strychnia, or of any other deadly poison; and when the necessity for their use has passed away, let their discontinuance be as carefully prescribed. The habit of indulgence, when once established, cannot easily be checked; and I would fain wipe away from the hands of the profession the stain of its careless initiation. If, after this course has been adopted, a patient willfully drifts into their abuse, the fault will clearly be his own, not ours.

And lastly, gentlemen, of syphilis. Of how many frightful maladies would the world be rid could we but put our heel on this hydra-headed monster and stamp it out of existence? How many hundreds—aye, thousands—of sufferers would learn to bless our endeavors if they only knew to what source rightly to attribute the origination of their ailments? How many of these ailments baffle our utmost skill? How many existences are rendered miserable from the cradle to the grave? and yet how possible is it for us to stretch out a helping hand in this direction? By some far-seeing philanthropists the Contagious Diseases Acts were first promulgated; and though a cry of horror has been raised concerning them throughout the land, it is raised simply in ignorance.

I know that I am speaking to an audience of gentlemen whose opinions may differ somewhat upon this much-vexed question; but I feel that the subject is one of such vital importance that I should be morally guilty if I did not speak out plainly upon it. The cry of horror and of shame that has swelled

up throughout the land with respect to these Acts has been a source of infinite satisfaction to me, for it has shown me that the heart of the nation is right in the matters of morality and modesty, and that in this old England of ours the purity of our women is still, as it has ever been, one of the great bulwarks of the nation; but it is a cry raised in ignorance, though fostered from most worthy motives. God forbid that I should seek to further any step that should tend to lessen the purity of pure English women; but you and I know only too well how deeply changed is the nature of those to whom, and to whom alone, these Acts can apply, and how infinitely below all ordinary standards they have fallen. Surely she who can make prostitution her occupation is beyond the pale of everything but reclamation; and for the sake of humanity, both living and as yet unborn, we are, in my opinion, bound by an inflexible chain of duty to endeavor by every means in our power to check the spread of the illimitable evil which prostitution is capable of inflicting.

They who hold the opinion that the evils which mankind bring upon themselves by their sin should be justly borne by themselves as their punishment, are undoubtedly right; but they have no knowledge, they can have no knowledge, of the dire ramifications of the evil it is sought to check. They forget that the effects of the sins of the father are to be carried by even the third and fourth generations of the children; and it is on behalf of these, the purely innocent, the yet unborn sufferers, that we are pledged to fight. How common to every one of us is the picture of little children brought into the world to pass through a long and weary martyrdom of miserable life; with eyes never destined to behold the glory of God's light; brains never destined to raise them above the level of the brutes; alimentary canals unable to digest the simplest food; bones too rotten ever even to assume the ordinary proportions of health; and bodies defaced, deformed, and crippled, till, instead of bearing the image of the Creator, they become almost too hideous even for the creature to behold.

It is in behalf of such as these that I venture to ask you to turn your thoughts in the direction of syphilis to-day; and I feel sure that, however widely we may differ in our opinions as to the advisability of the remedy applied, we should all be only too thankful if we could venture to hope that, in the end, the disease might perchance be eradicated.

Glaucoma and Iridectomy.

Dr. CURTIS says, in the *Pacific Medical and Surgical Journal*:—

The diagnosis of glaucoma is not difficult, yet it may be possible for one but little acquainted with the disease to mistake it, in its various forms and stages, for some one of the following troubles: Glaucoma simplex, with narrowing of the visual field, might at

first thought be taken for amaurosis; but the hardness of the globe, the halo about a candle, and above all the ophthalmoscopic appearances, would declare its nature. An acute attack might be mistaken for the commencement of purulent conjunctivitis; but the presence of severe, bearable pain, the tension of the ball, the dimness of vision while the cornea remains clear, and the absence of all purulent secretion, sufficiently indicate its character. It might also be thought facial neuralgia; or even rheumatism, when the pain extends over the whole side of the head and is severe at the occiput; when accompanied by nausea and vomiting, a bilious attack might be surmised; but underlying these prominent symptoms the careful physician will not fail to detect signs which show the eye to be the starting point of all the disturbance. If the ciliary vessels are much injected, it might be thought iritis; but the varicose condition of the episcleral veins, the shallowness of the anterior chamber, and the dilatation of the pupil, would put at rest any doubt. Turbidity of the vitreous, together with the natural deep tint of the lens peculiar to age, frequently give the appearance of cataract; and the cataract which actually forms in the last stages of glaucoma might be considered the primary disease; but the previous history of the case would quickly disabuse one's mind of such an idea. From paralysis of the accommodation, accompanied—as it usually is—by dilatation of the pupil, glaucoma may be told by the absence of all its other symptoms, by the normal appearance of the fundus under the ophthalmoscope in cases of paresis, and by the action of calabar bean, which contracts the pupil and improves vision in the latter disease.

The prognosis for glaucoma in all its forms is the same; if left to itself, or if only palliative measures are used, it sooner or later invariably leads to total blindness. Hitherto all efforts to cure glaucoma by the administration of drugs or by operative interference have failed, with the single exception of an iridectomy performed as Von Graefe directed. It is true that a patient may recover from an attack of the disease, and have his sight for the time being almost wholly restored, by the use of appropriate medicines, or by some simple operation, such as repeated paracentesis of the anterior chamber, a peripheral incision of the cornea, or a division of the ciliary muscle; and the same result might possibly occur if the attack be suffered without treatment, but it is sure to be followed by other attacks which lead the patient steadily forward to the goal of perpetual darkness. Fortunately, however, this is an unnecessary terminus; a properly performed iridectomy, done at the proper time, will surely restore the patient's sight and prevent other attacks. But the simple cutting out of a portion of the iris, as is usually done in the operation for an artificial pupil, is not sufficient; the lance-shaped knife should be entered in the border of the sclerotic, just anterior to the junction of the iris and ciliary

body, instead of through the corneal tissue; the wound should be wide, so that at least one-sixth of the iris may be taken out, which should be removed close up to its ciliary attachment. If the anterior chamber is shallow, great care should be taken that the point of the knife does not injure the capsule of the lens, thus causing traumatic cataract; and it should be very slowly removed from the eye, so that the aqueous may escape gradually, thus lessening the danger of intraocular hemorrhage, which sometimes occurs from the tension being removed too suddenly.

After the operation, I think the best dressing is that recommended by Prof. Agnew: a strip of isinglass plaster is put over the lids to keep them closed, a parallelogram of soft cotton or linen of a size sufficient to extend beyond the orbit on either side, and from the level of the nostrils to above the superciliary ridge, is placed over the eyes, and a double fold of black silk, large enough to cover the cloth with the exception of the narrow strip at the upper edge, is placed over this; a notch is cut in the dressing at the middle of the lower edge, so that it may closely fit about the nose, and the edges are fastened to the face by strips of isinglass plaster. As a rule the dressing need not be removed till the third day, and once a day thereafter will be quite as often as necessary until the eye is free from inflammation; after which a shade should be worn, being gradually left off as the eye gains strength. The advantage of this dressing over the ordinary bandage is, the patient may be more safely exposed to the light, and the eye is kept cool and without pressure.

It is often asked how iridectomy cures glaucoma? That it does so by permanently reducing the intraocular tension is certain, but the *modus operandi* by which this reduction is kept up is unknown; many theories have been set forth to account for it, but to each one as many objections can be raised; perhaps when the immediate cause of the disease shall have been ascertained it may be found that the beneficial action of the operation results from the removal of that cause. For a time we must be content with the cure.

The only questions in practice are in regard to the time for an operation in order to secure the most good for our patient, and whether the disease has not gone so far that no operative interference would be justifiable. The opinion of ophthalmic surgeons is quite unanimous that the sooner an iridectomy be done the more sight is saved; it is the long-continued pressure on the delicate structures of the retina that does most harm, and it should be our aim to remove it as quickly as possible. It is found that an iridectomy done in the course of a chronic glaucoma or of glaucoma simplex, does not restore the same amount of sight as when done during the acute form. Even when

perception of light is entirely gone in the latter class of cases, if no time has been lost in doing the operation, the result is most gratifying.

Sickness and Vomiting of Pregnancy.

Dr. DECAMP, in a paper before the Michigan State Medical Society (*Mich. Univ. Journal*), says:—Arsenic has never before been suggested in this affection. He found it possessed the power of directly influencing not only the nervous system and alimentary canal, but that it also strongly influenced the uterus and urinary organs.

It has been found effectual in curing menorrhagia and hemorrhoids, which also goes to show its power over the organs of the pelvic cavity, when in a state of disease as well as in health.

At this time he thought of its decided power to control some forms of gastric trouble, and reasoned, from its power to influence both stomach and uterus, that it would be worthy a trial in the disease in question.

In a case that soon afterward occurred, where all the then popular and even unpopular remedies had failed to give even temporary relief, he ventured to give this remedy, and was greatly satisfied with the success. To this patient, who had an extreme loathing of all remedies with taste or smell, he administered arsenic in one-fiftieth-grain doses, in powder with some sugar, before each meal. After two doses she could go to the table, eat freely, and retain the food with comfort—a thing she had not been able to do for days before; even the smell of food had caused her great nausea and retching.

From the magic influence here produced he was ready to make it the first thing to try in every new case. The result was that in nine-tenths of all the cases a speedy cure or relief was obtained. Of the dose, he said: "I have never used over one-thirtieth-grain doses, and in many cases have found drop doses of Fowler's solution answer equally well, where the patient preferred a solution to a powder or pill."

He had tried oxalate of cerium, and found it to fail in about one-half of all the cases in which he administered it.

In over fifty cases he had not failed of success by the use of either arsenic, calomel, or oxalate of cerium. Experience has taught which particular remedy to give in each case. Where the vomited matter contains much bile, with a brownish or yellowish coating of the tongue, with other evidences of disorder of the liver, our remedy is calomel. Where the patient complains of acidity of the stomach, with distress from eating, then the remedy is cerium.

By far the greater proportion of cases are those that loathe the smell, taste, or even thought of food. Many I have known to go for days without eating to avoid this, where the morning sickness caused no great suffering. Others have a great flow of saliva,

* Transactions of the American Ophthalmological Society, 1869.

which if swallowed is sure to produce sickness or vomiting.

These are the cases where of all remedies arsenic is the one that has never failed to give almost immediate relief, either temporarily or permanently.

Dislocation of the Index.

The following cases are reported by Dr. BUCKLEY, in the *Pacific Medical and Surgical Journal*:—

The first was in a boy fifteen years old, who slipped on a sidewalk in misty weather, and fell sideways on his right hand, without suffering any other injury in any part of the body save the dislocation at the joint referred to. My then colleague in hospital, Dr. Crockett, under whose notice the boy first came, drew my attention to the case, after he had used all ordinary means of reduction unsuccessfully, very much to his surprise. Having then put the patient under the influence of chloroform, we both exhausted every suggested and known means of reduction with no better result. Accordingly, we divided the tissues (carefully avoiding all injury to the flexor and extensor tendons) over the joint, turned out the head of the first phalanx, which was thrown forward and directly upward on the palmar region, and with a strong bone forceps removed sufficient of it to readily admit of its being replaced in suitable apposition with the head of the metacarpal bone, as in the ordinary operation for the excision of joints. We washed the wound with a weak solution of chloride of zinc, and placed the finger in a straight splint. The wound healed by primary union; no trouble of any kind marred the progress of the cure, and all the movements of the joint were perfectly unimpaired in three weeks from the date of injury.

The mechanical obstruction to reduction was at the time a source of much speculation for Dr. Crockett and myself, as well as a few other gentlemen who had seen the case, nor, indeed, up to the present have I been at all able to satisfy myself as to its nature. The two theories that immediately suggested themselves to us were—first, that the epiphysis of the phalanx, which at this period of life remains, even if united, somewhat flexible, had been distorted into some entanglement between the flexors; second, that the transverse ligament had slipped in between the heads of both bones. Both these theories were proved to be fallacious by the simple fact that, after complete exposure of the articular surfaces, reduction was as far beyond the reach of our resources as previously, which necessitates our looking elsewhere than at the joint itself for the true seat of difficulty, and adds immensely to the special interest of this form of injury.

Case second came in the first place directly under my own notice. The boy was about 12 years old; the appearance of the hand was exactly similar to the first case; the alleged cause was a blow from a hand-ball

on the digital part of the palmar region. Having failed to reduce the dislocation by every device of manipulation within my own resource, I showed the case to Dr. Carter, another colleague, who failed in like manner to reduce it. We both accordingly agreed on an operation similar to that performed in the first case; the boy's mother, who knew sufficient of medicine to be easily deceived, objected, on the ground that if we could not reduce "a little dislocation of this kind without cutting, she would find somebody who could." In a neighboring institution, as we afterwards learned, all efforts failed in a similar manner, and presumably a very large number of private practitioners as well as bone setters *et hoc genus omne*, had also exercised their talents and muscles, with no better effect; for it was fully a week after when the boy was returned to us for operation. This was done exactly as in the former case, and with a like happy result, though by no means so speedily attained.

The Treatment of Mumps.

Dr. RECORD writes to the Cincinnati *Lancet and Observer*:—

This disease is capable of becoming quite a grave one, instead of the trivial thing I was taught to regard it.

It is not a trivial thing to treat cerebral affections, let the cause be what it may. It is a serious affair when a physician has an intelligent, useful, and influential patient lose his reason and become a subject for the asylum, as I feared one of my cases was going to do, and as one did in this county some years back, as I am credibly informed. Neither is it a light thing or "laughing matter" to the patient to become sterile or lose his ability to enjoy the pleasures of *coitus*, which has happened in a few instances where the orchitis has terminated in atrophy of the testicles. Then, as the disease may assume formidable proportions, so should the treatment be adapted to render it harmless. The disease, as it was formerly treated, ran its course without any interference, and I gave ordinary general treatment a fair trial, and did not see that I did my patients much good until I changed my plan, and tried one not heretofore mentioned.

In the first place, when my advice is sought early, or as soon as soreness, with stiffness of the jaws is felt, I direct patient to go on about his usual vocation as if nothing was wrong, and not confine himself to the house and tie up his jaws, or use any embrocations, liniments, or medicines whatever, as heretofore ordered, but just consider himself safer with his mumps uncovered and uncared for than he would be while confined to a warm room, sweating himself with hot flannels, fomentations, or greasy, nasty compounds applied to his neck. There is no surer way to cause metastasis in this disease than to follow the "books." This I know from experience, which is worth more than a thousand fine-spun, cut-and-dried theo-

ries. In all cases, where my directions were followed, there was *only simple parotitis with no metastasis!* and per consequence, I lost several fees for my good advice. I shall not attempt to give the theory in a case so plain that I think every intelligent physician will acknowledge it upon a moment's thought; that for a farmer or mechanic, whose life is spent in the open air, to be confined to a hot room, as above said, if he was well when he began his treatment, he would be sick enough in a day or two to call for his physician.

In the next place, when they have followed the "books," and I am called, I proceed to treat *symptoms*, or meet the indications. If there is great pain in the head, a blister is indispensable. Where there is much fever, I meet it with sedative diaphoretics, and use fomentations to the scrotum—not that I have much faith in local applications, but because the patient must be pleased, and that will be satisfactory. But I rely now on *turpentine* as the remedy. How it acts you know as well as I; but certain it is that in every case, without a *single* exception, where I gave it, the disease was shortened, and my patients were happy and comfortable in from twelve to thirty-six hours. I give all that the patient can bear. The first case that I treated in that way was a young man who had been under treatment by another physician for some days, and he being dismissed, I was called, and found him with fever, and suffering severely with his orchitis. His tongue being heavily coated, brown, dry, etc., I put him on turpentine for its effect on the secretions, and I was surprised at my next visit to find him convalescent; so I tried it again in another case, with like results, and so on until I became satisfied as to its power to relieve the swelled testicles. I now consider it a specific in such cases.

REVIEWS AND BOOK NOTICES.

NOTES ON BOOKS.

—A short treatise on the important subject of House Drainage is announced by Macmillan & Co. The full title is "Sewer Gas, and How to keep it out of Houses," and the author, Mr. OSBORNE REYNOLDS, Professor of Engineering in Owen's College, Manchester.

—Our "National Text Book," the U. S. Pharmacopœia, is anxiously looked for by all the fraternity. The body who met in Washington in May, 1870, delegated the work to a publishing committee, and it is believed that the work is ready for the printer now, if not some portions already in proof. It doubtless will be a work reflecting credit upon its faithful laborers.

—A "Botanist's Pocket-book" is to be issued in England by Messrs. Bell & Daldy. It is intended as a handy pocket companion for the botanist in the field, and will enable him to identify, on the spot, the plants he may meet with in his researches.

—Of recent French publications we note:—

BAYARD (T.), Dr. en médecine.—*Traité des maladies de l'estomac. 2e édition, avec figures dans le texte.* In-8, xx, 505 p. 10 fr.

BROWN-SÉQUARD (Dr).—*Legons sur les nerfs vaso-moteurs, sur l'épilepsie et sur les actions réflexes normales et morbides; traduites de l'anglais par le Dr. Béné-Barde.* In-8, x, 211 p. 4 fr.

CHARCOT (J. M.), Dr. en médecine de la Salpêtrière.—*Legons sur les maladies du système nerveux, faites à la Salpêtrière. Recueillies et publiées par Bourneville, ancien interne des hôpitaux de Paris; avec figures dans le texte. Ire livraison. Destrocles trophiques consécutifs aux maladies du cerveau et de la moelle épinière.* In-8, 100 p.

JAMAIN (A.), chirurgien des hôpitaux de Paris.—*Manuel de petite chirurgie, 5e édition, avec 438 fig., intercalées dans le texte.* M. Félix Terrier, professeur à la Faculté de médecine. In-12, 966 p. 8 fr.

LÉPINE (Dr R.).—*De la pneumonie caséuse. Thèse présentée au concours pour l'agrégation (section de médecine et de médecine légale); par le docteur R. Lépine.* In-8, 144 p. 3 fr.

BOOK NOTICES.

A *Manual of Qualitative Analysis.* By Robert GALLOWAY, F. C. S., etc. From the fifth rewritten and enlarged London edition. With Illustrations. Philadelphia, Henry C. Lea, 1872. 1 vol., 8vo, cloth, pp. 402.

This edition, as is justly claimed by the author, contains extensive additions, as is required by the rapidly advancing science of chemistry. The general plan of the book remains, however, the same as adopted in earlier editions, the author claiming for it certain advantages over those of FRESSENIUS and other teachers.

Among the additions we may mention Bunsen's flame reactions, with figures of the apparatus he employs, the detection of the poisonous metals and acid-radicals in the presence of organic matter, and generally more complete details for the detection of individual alkaloids. The latter methods will have peculiar interest for the physician, as it is this class of toxic agents now most frequently used in the commission of homicide by poison.

The new notation, now generally received in Great Britain, has been adopted, and in other respects the book is brought up to the current position of chemistry.

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, AUGUST 10, 1872.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

Medical Societies and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

To insure publication, articles must be *practical, brief* as possible to do justice to the subject, and *carefully prepared*, so as to require little revision.

Subscribers are requested to forward to us copies of newspapers containing reports of Medical Society meetings, or other items of special medical interest.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

CHANGE OF AGENT IN NEW YORK.

Mr. Z. P. HATCH being absent a great deal from New York, and the necessity of having an active agent and a convenient office in that city constantly increasing, we have appointed Mr. GEORGE KEMPTON, No. 194 Broadway, as our New York agent. We feel assured that subscribers, advertisers, and others in New York and vicinity, who may find it convenient to transact business through that agency, will find Mr. KEMPTON attentive, prompt, and correct in his business transactions.

Mr. HATCH retains the agency of the HALF-YEARLY COMPENDIUM.

THE SOURCE OF LIFE.

The progress of what we call natural science has steadily been to confine and limit the sphere of individual life. The manifestations of power in the world around us, which antiquity regarded as signs of volition, we attribute to blind and immutable forces, acting from fixed cause, dateless and passionless.

The sylph no longer sports in the foam of the cataract, nor whispers sweet mysteries in the chattering brook; it is no more the spirits of the air who sing strange melodies

in the forest trees; mighty personalities control no more the elements and the actions of nature. Seek where we will in the phenomenal world, conscious life is nowhere found; not only this, every indication and hint of conscious life fades, lessens, as we approach it.

Yet an abiding and indestructible instinct clings about us, urging us to seek and to hope that in the progress of pure science we shall somewhere reach a plane from which we shall catch a glimpse of a life real and possible, outside of the realm of mere natural agencies.

Has physiology as yet found any grounds for such a hope? To her, of all the ancillary sciences of man, we should first look.

The suggestion has been made by an eminent American physiologist, that in the growth of the brain we observe a constant development from birth to death; that its growth in complexity does not cease with the growth of the body; that it is constantly adapting itself to a broader activity.

We know that the properly trained mind by no means reaches its maturity when the body does, but continues to improve and grow for many years after. The analogy is hardly strained, therefore, which compares this to the constant growth of certain organs of the fetus—those, namely, which are to be used in extra-uterine life—while others, those whose duties terminate with birth, ripen early, and decrease or disappear. The inference is that the mind does not reach its development in this life, but is preparing for another.

Again, is it likely that the most earnest longings and highest capacities of a creature should be totally infructuous and meaningless? No example of this is found in lower natures. Why, therefore, should we insist that man alone forms a startling exception to this law? Yet, granted the annihilation of the individual, how devoid of meaning are his deepest sentiments and aspirations?

The absolute impossibility of conceiving

first causes should at least be a standing bar to a denial of an immaterial power. And that such a power does exist, in other words, that force may be exerted independent of matter, Sir WILLIAM HERSCHEL demonstrated, in reasoning on voluntary motion. For the action of the voluntary muscles can be explained on no conceivable theory other than that of an immaterial will primarily starting the motion.

Such considerations are nowise in favor of the doctrine that life is explicable on chemical grounds, and is but an attribute of matter in certain of its conditions.

RACE AND CLIMATE.

A London paper starts the inquiry whether the summer climate of the Central United States will not ultimately work a deterioration of the race which now inhabits that territory. The text of the article in question is the large mortality which, during several weeks in July, was reported by our large cities.

The effect of prolonged heat on the various human races has long been a subject of study, and the facts concerning it are pretty well known. In spite of striking instances which can in limited number be adduced to the contrary, there is no doubt that a temperature which is not more than agreeable to one race is prostrating to another. In this, much is owing to an acquired and transmitted ability to support extreme heat or cold.

The mortality which is so conspicuous in periods of extreme heat proves on examination to be largely among very young children, and foreigners recently arrived in this country. The intemperate and the aged also suffer conspicuously. English writers are apt to misinterpret the mortality bills of our summers, because their own warm season is the healthiest of the year. As one of the most diligent English medical statisticians stated it, with them, comparing in cartographic form the lines of monthly temperature and mortality, "the waves of heat

are waves of life, the waves of cold are waves of death."

That the reverse of this is true in our country, depends largely on the much greater change of our temperature, on the difference of the prevailing diseases, and on the peculiarities of a new country with a large unacclimated population.

The general question whether the white race has deteriorated physically in the United States, cannot yet be answered, because we lack means of comparison. The expectation of life is probably about the same after puberty, or the Life Insurance companies would have discovered it. It is likely that positive physical force, muscular strength, is less here than in England. The athletes who display their brawn on our stages are nearly all foreigners. The inferiority in athletic games of our countrymen must be acknowledged. An aversion to the hard work of the gymnasium is obvious in our cities. Doubtless the neglect of outdoor exercise in the better class of our population, especially the females, is to be traced in great measure to our climate, variable, and extreme in heat and cold.

This does not necessarily mean the race is deteriorating. Physical power is not the correct test of this. Symmetry of development, intellectual force, and prolonged life with health are the true standards. In these respects we are not convinced that we are behind the races of England and Central Europe.

NOTES AND COMMENTS.

Cyanchloral Hydrate.

If chloral hydrate and anhydrous prussic acid be heated together, says the *Journal of Applied Chemistry*, in a tube, for three or four hours, at a temperature of 120° to 130° C., cyanchloral hydrate is formed. This substance, when pure, crystallizes in very thin rhombic plates, is almost entirely inodorous, and very soluble in ether, alcohol, benzol, bisulphide of carbon, and water. When heated with caustic potassa, or with the car-

bonate, phosphate or borate of soda, it gives off chloroform, formic acid and prussic acid. The aqueous solution of cyanchloral hydrate may be preserved for weeks at a moderate temperature without undergoing decomposition. In the cold it is not precipitated by nitrate of silver; on warming, cyanide of silver is thrown down. Concentrated sulphuric acid precipitates it unaltered in oily drops from its aqueous solution; it then slowly becomes solid in the liquid. From a concentrated aqueous solution it is also precipitated at first in oily drops by fuming hydrochloric acid. It melts at 58° to 59° C.; becomes solid at 57.5° to 58° . It can be sublimed almost without change. With sulphuretted hydrogen it forms sulphur compounds, one of which has been isolated and is insoluble in water. When heated in water it is decomposed, sulphuretted hydrogen being given off. It is soluble in alcohol and ether, and crystallizes out of them in thin white plates of an offensive smell, like mercaptan. The alcoholic solution is decomposed by acetate of lead directly into sulphide of lead and chloral hydrate. Analysis gave 9.94 per cent. sulphur (calculated 9.73.)

The "Balm of Gilead."

This substance is obtained from the *Balsamodendron Gileadense*, or *opobalsamum*. Pereira says it is a whitish, turbid, thick, very odorous liquid, which resinifies and becomes yellow by keeping. Its physiological effects are believed to be similar to balsam copaiba and the liquid turpentine. The most wonderful properties were formerly ascribed to it. It is rarely employed by Europeans; but it is adapted to the same cases as the terebinthines. It is mentioned by the prophet Jeremiah: "Is there no balm in Gilead?" and in several other passages. It was an article of commerce at a very early period, for it is mentioned among the goods carried by the company of Ishmaelites to whom Joseph was sent by his brethren. We learn the value placed upon it from the fact that when Jacob sent his sons the second time to the ruler of Egypt, desiring to propitiate him, he bade them "take a present; a little balm, a little honey," etc. Pliny says, "To all other odors whatever, the balsam is preferred." It was esteemed so precious a rarity that both Pompey and Titus carried a specimen to Rome in triumph. "A small piece of the

resin," says Theophrastus, "was so odoriferous that it filled a large space with its perfume." He adds that in his time only two inclosures, of small extent, were known to produce this tree.

Betel-Nut Chewing.

The Eastern correspondent of the *New York Mail* writes to that paper:—There is a fascination in betel nut more extraordinary than in a tobacco passion. The consumption of the latter in chewing alone, in the United States, is a modern phenomenon. An inveterate chewer may have moral resolution enough to break off the habit, though it rarely happens that an effort is made to do so, as an apology is found for continuing a practice that is positively destroying the foundations of health. Once addicted to chewing tobacco, to abandon it is an achievement few have the happiness to perform, notwithstanding the melancholy mortality of men in the meridian of life who are constantly being destroyed by the subtle influence of that strange plant on the nervous system. Thus, sudden palsy of the heart, palsy of a limb, palsy of one-half the tongue, and even instantaneous death, are traceable by physicians to excessive use of tobacco.

But the vice of betel-nut chewing, however, is still more remarkable. When the habit is established there seems no retreat. Each victim wears out his teeth, gums, digestion, and dies with an unsatisfied longing for another quid. Betel-nut trees thrive in most parts of tropical India, the Indian Archipelago, and the Philippine Islands. They grow up gracefully about thirty feet, rarely more than eight inches in diameter. It is an *areaea vatecha*. Penang is the universal name of the nut in those places where it is produced, hence pulo penang means a betel-nut island. At six years of age the tree commences bearing nuts the size of a small pullet's egg, of a bright yellow color, enclosed in a husk similar to the cocoanut; within is a spherical nut, very much like a nutmeg. Broken, a bit of it is wrapped up with a piece of unslaked lime in a peculiar leaf, the siri betelpiper, extensively cultivated for that purpose.

The gums and mucous membrane of the mouth are quickly stained a brick red, the teeth crumble to a level with the gums, and in that condition an inveterate betel chewer is wretched without a supply. There are

large plantations of betel-nut trees in Java to meet the demand for home consumption and distant provinces. To augment the pleasure, those who can afford it add tobacco to the lime.

Position in the Reduction of Hernia.

Dr. SIMORRE recommends (*L'Abeille Médicale*, May 27, 1872) that in the reduction of a strangulated hernia the patient should be placed in the following position: A mattress having been doubled on itself, the patient is placed upon the inclined plane which results, in such a manner that his buttocks will rest on the most elevated part, and the front of the vertebral column, which corresponds to the epigastrium, upon the lowest part. His head and chest are supported by a bolster, and should be higher than the epigastrium, so that the muscles of the front of the neck, and of the chest and abdomen, shall be in a condition of extreme relaxation. The space at the foot of the bed made vacant by the doubling of the mattress should be filled up, so that the patient's feet may have a suitable support. He says that since he has had recourse to this method, in no instance has a strangulated intestine resisted his efforts at reduction.

Cocoanut Oil.

The cocoa palm is of immense importance in the countries where it grows. It yields a delicious food, a nutritious drink, a rich oil and fibres which are manufactured into thread, twine, ropes, and all kinds of strong, useful cordage.

Boiling the pulp breaks open the cells. As the oil is liberated it rises to be skimmed off. A few years ago the Dutch government ordered a census of the cocoanut trees in Java and Madeira, which footed up twenty millions, being an average of three to every native inhabitant.

Vast quantities of the oil are burned in lamps throughout the whole Indian Archipelago. A tumbler half filled with water has oil poured in to the brim. Two lighted sticks are the wicks, which burn brilliantly. Every native glories in a display of lamps in the house and about the grounds at the approach of night.

When first taken out of the boiling pot the oil has a rich flavor, but soon becomes rancid. So copious is the supply, however, it can always be had fresh and

sweet for the table. Like olive oil in Syria, it is butter, lard, or oil, according to circumstances, in cookery. Soap is made with it, lamps supplied, leather dressed, and cosmetics are fabricated for beautifying the homely faces of women.

Disinfecting Chambers.

The corporation of Dublin have constructed a hot-air chamber, in which clothes and bedding are disinfected for the public, the fees charged for the process being nominal. The walls and ceiling of the compartment in which the clothes are heated are built of brick, and its floor is composed of perforated iron plate. The heat is supplied from the exterior surface of a coil of pipe eighty feet in length, which acts as a part of the furnace flue. The products of combustion escape into the atmosphere without passing into the close chamber, and no emanations from the infected clothes can pass into the open air; this disinfecting apparatus cannot, therefore, taint the atmosphere of the locality. A disinfecting apparatus of this kind should be erected in every large town. Clothes may be effectually disinfected in a common oven, if care be taken to prevent the temperature from extending beyond 300°.

Test for Iodine.

A small quantity of sulphuric or hydrochloric acid is added to a solution of iodide of potassium, containing some starch. On dropping in some permanganate of potassa, the presence of one part of iodine in 100,000 parts can be detected. This method is more sensitive than the electric current. The permanganate solution ought to contain one part of the salt in 1200 or 1400 parts of distilled water, and should have a red color, without a trace of violet. The iodide of potassium solution should contain one in 1000 to one in 10,000.

Combined Action of Morphine and Chloroform.

M. CL. BERNARD, of the College of France, has studied the comparative physiological action of the different alkaloids of opium, and has shown that it is possible, by combining morphine and chloroform, to produce a very complete anæsthetic state with a quantity of chloroform much less than is usually required when that liquid is used alone. To demonstrate this, Cl. Bernard

first injected a certain quantity of muriate of morphia (5 or 10 centigrams) under the skin of a dog, and shortly after administered chloroform. Each time the anæsthesia was produced at once, and continued some time, although the quantity of chloroform administered was very small. These experiments were repeated a great number of times, and always with the same results.

The experiment was also tried on human beings, by Nusbaum, a surgeon in Munich, and by two surgeons in Strasbourg, MM. Rignault and Sarazin.

Anecdote of Scheele.

Scheele discovered oxygen and nitrogen in air, chlorine, manganese, barytes, tungsten, molybdenum, prussic acid, hydrofluoric acid, glycerin, and citric, tartaric, oxalic, malic, tannic, uric, and lactic acids.

When the King of Sweden visited Paris, Lavoisier and all the learned men inquired about Scheele, but the king had never heard of him. He wrote home at once, and ordered his ministers to look him up. The only Scheele who could be found was a clerk in one of the government offices, so he was knighted and pensioned. But when the king returned, the real Scheele was found, and offered every inducement to take up his residence in Stockholm, but he preferred his shop in Koping, and lived and died in his little laboratory.

Arrest of Epileptic Seizures.

Dr. BROWN-SÉQUARD arrests the attacks of epilepsy excited in Guinea-pigs by irritating the epileptogenous zone, by irritating the mucous membrane of the pharynx (perhaps especially or solely of the larynx), by injecting a current of carbonic acid. The current of gas must be expelled forcibly from a tube carried far back in the mouth.

Rosenthal's (of Berlin) experiment in arresting the convulsions caused by strychnia, by pulmonary insufflation, Brown-Séquard thinks was successful on account of the irritation of the branches of the vagus in the bronchi, and of the phrenic and other nerves of the diaphragm, and not on account of the superoxygenation of the blood.

He concludes that carbonic acid is a very powerful excitant of the nervous ramifications of the vagus, and perhaps of other nerves of the pharynx, larynx, and bronchi, and that irritation of these will produce the

arrest, suspension, inhibition, or, if preferred, the cessation of activity of the parts of the nervous centres which are active in the production of convulsions due to epilepsy, poisoning by strychnia, or the rapid and considerable loss of blood.

The Corpora Quadrigemina.

The investigation of these bodies by Dr. KNOLL are referred to in the *New York Medical Journal*. He found that division of the optic nerve between the eye and the chiasm produced dilatation of the pupil and paralysis on the corresponding side, the opposite side not being affected. But division between the chiasma and the brain produced these effects on the opposite side, showing that in the chiasma there is a complete decussation of the fibres which influence the oculo-motor. The action of the oculo-motor nerve upon the iris is purely reflex, since, after the division of the optic, subsequent division of the oculo-motor has no influence over the pupil.

Injury of the optic thalamus or of the corpora quadrigemina produced no effect on the pupil so long as fibres of the optic tract were not touched. If these latter fibres were injured, the iris on the opposite side was paralyzed. Injury to the corpora quadrigemina caused no disturbance of motor power.

Irritation of the anterior corpora quadrigemina produced dilatation of the pupils in both eyes, which ceased on division of the cervical sympathetic.

Paracelsus.

Naude called Paracelsus "the zenith and rising sun of all the alchemists." In the year 1526 he was chosen Professor of Physics and Natural Philosophy in the University of Basle, where his lectures attracted a vast number of students. He boasted that he was himself in possession of secrets able to prolong the present period of human life to that of the antediluvians; he had, in fact, discovered alcohol, and thought that in it he had found the long-sought elixir of life. Paracelsus determined to put it to the test; and, drinking copiously of his alcohol (with a daring worthy of a better cause), sank dead on the floor of his laboratory, a type, as Cumming says, "of man's effort to save himself, that is, to live forever."

The Usefulness of the Century Plant.

What the bamboo is to the Chinaman, and something more, the maguey was to the ancient Aztec, and is to his descendants of the present day. Every day of the year, every hour of the day, he comes in contact with it in some shape. In more than a hundred forms he has utilized it, and made it conform to his sustenance and comfort. It is the prime necessity of his simple life. It is bread, and drink, and raiment to him; he is born upon it, cradled in it, fed upon it, clothed with it, dies upon it, and is buried in it. No other plant which grows upon the earth is put to so great a variety of uses; and he knows them all.

On the table-land of Mexico one is never out of sight of it. It forms an impenetrable hedge, before which man and beast must alike turn back; around every field, and in many whole districts it is cultivated in vast fields, hundreds of thousands of plants being seen in a single plantation, ten acres of maguey to one of corn, and ten of corn to anything else, being cultivated over a section of country larger than New England.

The maguey is propagated from suckers, of which each old plant throws off a number every year. It flourishes on all soils, but is said to do best upon rather poor, clayey lands, or on hillsides among old lava. It will grow thriftily where hardly anything else can be produced; it is not affected by the long drought of summer, and will withstand a heavy frost, and even a degree of cold sufficient to form ice an inch in thickness, without injury. A more hardy plant, or one more easily propagated or cultivated, is not known in the world. It is planted out in rows about ten feet apart, and, for one or two seasons, maize or wheat may be grown upon the same ground. After that the land is used for grazing purposes, neither cattle nor sheep ever attacking the maguey, however hard pressed by hunger.

The long, thick, lance-shaped leaves, of a pale, bluish-green color, each terminating in a sharp, stiff spine, or thorn, come up from the centre of the plant in a solid cone, detaching themselves one by one, and falling outward until the whole plant has taken something the shape of a pine-tree cone, the points of the leaves at the base standing out in a circle from six to twelve feet in diameter, and the point of the roll of leaves in the centre being perhaps six or eight feet in height. The Mexicans estimate the cost of

a maguey plant in the field, when arrived at maturity, reckoning the cost of planting and subsequent labor, interest, and use of land, at fifty cents, and its value for all purposes at \$5. It will be seen that a field containing 100,000 of these plants at maturity represents \$500,000, and there are many such in the country. Until it reaches maturity it can be applied to no use, and the plantation is wholly unproductive of revenue.

But then it yields its various products quickly, and is removed to make room for a sucker which it has thrown off to take its place and go through the same routine. After the summer rains have ceased, say in October or November, the maguey, which has reached the proper stage of development, swells up in the centre, and, in place of the upright roll of leaves, a head like that of a Flemish cabbage shows itself. This head quickly takes the form of a gigantic asparagus-sprout, six to twelve inches in diameter, and shoots up into the air with astonishing rapidity, say at the rate of from six inches to one foot per day, until the height of fifteen to thirty feet is attained, when from three to fifteen hundred or two thousand pale, greenish-white blossoms are developed, and the maguey has entered upon the last stage of its existence. From that hour it fades and droops, and soon withers away and dies.—*Overland Monthly.*

CORRESPONDENCE.

EDS. MED. AND SURG. REPORTER:

During the intensely hot weather just past, I was surprised to see such frightful mortality among little children, and reported as caused by *cholera infantum*. It would be a matter of deep interest to know under what mode of treatment those deaths occurred! Whether under the care of regular practitioners, or others. With my present knowledge of the prevalence of that disease during the heated period above referred to, I am inclined to think there has been less cholera infantum this summer than usual, and that death in many of those cases was due to other causes. The records in the Health Office show that infants from two hours up to two and three days have died of cholera infantum. How can this be?

MEDICUS.

Philadelphia, August 9, 1872.

NEWS AND MISCELLANY.

Resolutions in Memory of Dr. Fish.

At a special meeting of the Medical Board of Charity Hospital, held August 5th, 1872, the following resolutions were adopted, as expressive of the feelings of the Board in regard to the death of one of their members Dr. A. H. FISH:—

Whereas, It having pleased an All-wise Providence to remove from our midst by death our friend and colleague, Dr. A. H. FISH; be it therefore

Resolved, That we, the Medical Board of Charity Hospital, express our heartfelt sorrow at his death. Earnestly believing that our loss is his gain.

Resolved, That the Secretary be instructed to express our warmest sympathy with the family of the deceased in their affliction, and that a copy of these resolutions be forwarded to them, and published in the medical journals.

American Medical Association.

The Triennial list of Permanent Members will be published this year. Permanent Members who have not paid their assessment will please notice:—

"Any Permanent Member who shall fail to pay his annual dues for *three successive years*, unless absent from the country, shall be dropped from the roll of Permanent Members."

WM. B. ATKINSON,
Permanent Secretary.

Peoria County Medical Society.

The Peoria County Medical Society met in semi-annual session at Yates City, Ill., July 1st, 1872, pursuant to adjournment, Dr. H. Steele, Vice President, in the chair.

The minutes of last meeting were read and approved.

Report of special committees being in order, Dr. Marsh, committee on Practical Medicine, read a paper on acute rheumatism. The Doctor did not discuss the cause nor the pathology of the disease, assuming that all were agreed on those points, but gave the Society a statement, in detail, of the treatment. The subject was thoroughly discussed by most of the members present.

Moved and seconded that the report be received. Carried.

Dr. G. L. Corcoran, Committee on Surgery, read an article on tubercular diseases, or vomica of the bones, embracing causation, pathology and treatment.

Also, an article on the treatment of hemorrhoidal tumors by nitric acid.

Dr. Hensley, of Yates City, read two articles on minor surgery. One on congenital malformations, the other on extra cranial tumors of infants.

These special questions in surgery were discussed at length by several members of the Society. Reports received and placed on file.

Dr. P. V. R. Dafeo, Committee on Therapeutics, read a paper on the use of a combination of prussiate of iron and quinine in the treatment of neuralgia. Report received and ordered filed.

Dr. Hensley, Committee on Obstetrics, read some extracts from an unfinished article on the use and abuse of the obstetrical forceps. Continued by request to finish paper.

The following committees were appointed by the President to report at next meeting:

Surgery, J. W. Hensley, M. D., Yates City.

Practical Medicine, J. D. C. Hoit, M. D., Yates City.

Therapeutics, J. K. Secord, M. D., Elmwood.

Medical Ethics, H. W. Marsh, M. D., Elmwood.

Obstetrics, Jas. McCoy, M. D., Brimfield.

Essayist, P. V. R. Dafeo, M. D., Elmwood.

Moved and seconded that the thanks of the Society be tendered Mrs. Dr. Hensley and Hoit for the very excellent dinner prepared for the occasion. Carried unanimously.

Moved and seconded that the Secretary be instructed to furnish a synopsis of the proceedings of the Society to the MEDICAL AND SURGICAL REPORTER, Philadelphia, and *Chronicle and Herald*, for publication.

There being no further business, the Society adjourned to meet at Elmwood, the first Wednesday in October next.

H. STEELE, M. D., Pres't.

J. K. SECORD, M. D., Sec'y.

Professor Harvey L. Byrd, M. D.

We learn that this distinguished physician and accomplished gentleman has, within a few days, retired from his professorship in Washington University, a school of medicine revived a few years ago by himself and one of his present colleagues—Professor Warren—and accepted the Professorship of Principles and Practice in the "College of Physicians and Surgeons," recently organized in Baltimore. Professor Byrd is extensively and favorably known in the South and West as one of the most distinguished lecturers on medical science in this country. The Faculty of the "College of Physicians and Surgeons" is composed of gentlemen of the first order of talent in their several departments, and we learn that the enterprise goes into operation under the most encouraging and flattering auspices. Such an enterprise commends itself to their fellow-citizens, and we have no doubt will receive their warm and cordial support.

Chinese Drugs.

The San Francisco *Bulletin* says, the ingredients of a witches' cauldron as described by the poet could not have been more repulsively disgusting than are the articles and compounds shipped to the Chinese physicians of this city from their native country, and used as medicines here. There seems to be just at the present time an extra demand for a venomous serpent, closely resembling the rattlesnake, and of which hundreds are received constantly. A custom-house official brought a specimen of these cheerful looking creatures to this office yesterday; a coiled snake about four feet long, fanged, and with hideous head scales like a crest. How these animals are taken by patients of Chinese doctors is not known. One would be a fair dose if disguised in a coating of sugar. They may be taken in sections three times a day, as they are dessicated, or they may be boiled down or pulverized and taken in powders, or rolled into pills. Lizards are in nearly as great demand as the snakes. These also are dried and sent over in packages, together with hundreds of other loathsome things, all of which are consigned to the Chinese physicians and used by them in their practice.

Dogwood.

In reference to the case of poisoning in Missouri from the use of Peruvian bark and dogwood bitters, a correspondent suggests that physicians should be careful in prescribing and druggists in putting up powders and extracts of dogwood. The American dogwood is astringent, aromatic and tonic, and is valuable as a remedy in low and intermittent fevers. The introduction of quinine has, however, nearly banished this substitute for cinchona from practice except as a domestic remedy. There is also a dogwood, a native of the West Indies, bearing the commercial name of "Jamaica dogwood," which is a powerful narcotic, and is used in poisoning fish. The accidental substitution of the latter of these remedies for the American dogwood would be attended with serious, and in many cases, fatal results.

Arsenical Paper.

Lately, light and dark rose-red letter papers have made their appearance in the trade, which find ready sale. Exposed to the light, however, these colors fade quickly. These rose-papers, according to Dr. H. Vohl, of Cologne, contain arsenical fuchsine coloring matter mixed with the pulp. This aniline color is much employed in paper manufacture, but on account of the slight quantity of arsenic contained in it, is not of a dangerous nature. The use of it, however, for envelopes is exceedingly dangerous, as through dampening it with the tongue it becomes absorbed in the system, and it has already caused some cases of poisoning.

Death by an Oyster Shell.

James O'Neill, ex-member of Assembly from the Ninth Ward, and Chief Clerk of the Excise Board, came to his death in a manner as singular as it was painful. At ten o'clock in the evening he sauntered out from his residence in Greenwich street, and after making a light lunch of a few raw oysters, he returned home and retired to rest. About midnight he was awakened by severe pains in the stomach. Physicians were summoned, and they, having learned that the patient had eaten cucumbers at dinner, treated him for cholera morbus, although the symptoms of his case were, in some respects, very peculiar, and baffled their skill to assign them to the proper cause. At one o'clock the pains left him, and he began to sink rapidly into a condition of coma. Two hours later, despite the best efforts of the medical men to save him, Mr. O'Neill passed away.

Satisfied that the cause of his death was one that no medicines could have removed, the physicians at once determined upon holding a *post-mortem* examination of the body. They found every organ in the healthiest condition, but discovered, while making a close examination of the stomach, that the intestines had been cut by a small bit of oyster shell, and their contents allowed to escape through the opening. The shell had evidently been in the stomach but a short time, and had, no doubt, been unconsciously swallowed by Mr. O'Neill while taking his evening lunch.

Instances of death from this cause are extremely rare. The latest to which attention had been called was that of Sergeant Babcock, of the police force, whose intestines had in a similar way been perforated by a cherry pit which he had accidentally swallowed.—*Sun.*

A Lady Centenarian.

Mr. J. W. Babson, Chief of Division, Pension Bureau, is still receiving replies to his inquiries after the health and condition of the widows of our Revolutionary soldiers. He has just heard from one who is probably the oldest widow on the pension list. The postmaster at New Matamoras, Washington county, Ohio, writes that Mrs. Lois Miller, widow of Phillip, a soldier of the Revolution, was living, on the 23d ultimo, with Priscilla Hays; that she will be 109 years old on the 13th instant; that her sight is somewhat defective, but that her mind is good for one of her age.

Cost of a Kiss.

The lights and shadows of a doctor's life are illustrated by the statement which we notice, that Mr. David Davies, surgeon, of Leominster, has been fined £1 and costs for having twice kissed a lady who came to consult him as to the beating of her heart, and which he declared beat "naturally enough." Mr. Davies has probably found his system of treatment more successful in some cases.

The Late Heated Term.

The late excessively high atmospheric temperature is not without precedent, as many suppose. We find by reference to a carefully-kept register of the weather that even during the past ten years, on several occasions we have experienced as severe and more protracted heat. In August, 1864, the mercury rose to from 89 to 98 degrees on thirteen days. In July, 1866, the temperature varied from 90 to 101 degrees during thirteen days. That year was remarkable for containing the coldest day on record, January 8th, when the mercury varied from 4 to 8 degrees below zero, in different portions of the city, and the warmest recorded day, July 16th, when a temperature of 102 degrees was reached in the shade. In 1868, on eighteen consecutive days, excepting two, at 3 o'clock in the afternoon the thermometer indicated a heat between 90 and 101 degrees. This season, from the 26th of June to the 6th of July, the mercury ranged between 92 and 100 degrees.

Curious Case.

An interesting case for heads of families in England, if not in this country, came before the Court of Queen's Bench, at Westminster, recently, raising, as it did, the important question as to the liability incurred by removing persons suffering from infectious diseases, so as to endanger the health of the public. The plaintiff was a lodging-house keeper at a seaside resort, Eastbourne, and the defendant a gentleman residing in London.

The action was brought to recover damages for the losses sustained by the plaintiff through the death of his children and illness of his wife, and also from his being prevented from letting his lodgings, in consequence of the defendant having brought his family into the house when they were suffering from scarlet fever, without stating the fact. The jury returned a verdict for the plaintiff, damages \$675, with leave to move on both sides.

The March of Cholera.

A late number of the *Journal de Geneve* says:—The caravan which left Mecca on February 25th, with an effective force of four thousand pilgrims, arrived on March 10th at the tomb of the prophet at Medina. During the fortnight four hundred persons died of cholera. There were at that moment at Medina seven thousand strangers, among whom the scourge was raging with terrible severity. Before the arrival of the Damascus caravan it appeared to have abated, but it immediately broke out again with violence.

MISS ANNA HEWS, the young lady who recently graduated at Michigan University, at the head of a class of eighty-six students, proposes to practice medicine in New York city.

Disinfecting Washing Powder.

A new disinfectant, to be used in washing, has been described. For its preparation 100 parts of white clay, 1000 parts distilled water, and 35 parts of ordinary nitric acid are to be mixed together. The mass thus obtained is allowed to stand for a few days, being stirred frequently. The supernatant fluid is then poured off, and the clayey mass thoroughly washed with distilled water. Five parts of permanganate of potassa are now added, and the composition, when dried, is made into tablets, and wrapped in paper saturated with paraffine.

OBITUARY.

Died, on the 3d inst., of phthisis pulmonalis, at Cooperstown, New York, Dr. AUGUSTINE H. FISH, aged 44 years.

Dr. Fish was born in Trenton, New Jersey. After graduating at Princeton College he entered the office of Dr. GEORGE B. WOOD, of this city, and attended lectures at the University of Pennsylvania, graduating with the class of 1851. Shortly after this he was appointed Resident Physician to the Philadelphia Hospital. On leaving this institution he commenced practice in Philadelphia, and pursued it successfully until stricken down by disease.

In the death of Dr. Fish the profession has lost one of its most active, devoted, and honorable members; one who worked in season and out of season, and who in his unselfish devotion to the interests of others fell a sacrifice to extreme labor. He was a man of refined manners and cultivated mind, a skillful physician, and a friend to the poor.

His unexpected and early death will bring sorrow into many a household beside his own.

August 6, 1872.

MARRIAGES.

CLEVELAND-WHITTAKER.—On Thursday, July 25th, in Covington, by the Rev. H. P. Walker, Dr. John L. Cleveland, of Cincinnati, Ohio, and Miss Clara B. Whittaker.

KETCHUM-SLASON.—In Ticonderoga, New York, July 30th, at the residence of the bride's parents, by the Rev. T. W. Harwood, assisted by Rev. J. S. Slason, father of the bride, T. J. Ketchum, M. D., of Pittsford, Vermont, and Miss M. E. Slason, of Rutland, Vermont.

MORRILL-MORE.—At St. Paul's Church, Cincinnati, Ohio, July 17th, by the Rev. W. A. Fiske, Dr. E. C. Morrill, of Norwalk, Ohio, and Miss Mattie More.

DEATHS.

COAD.—On the 24th July, in Philadelphia, Professor P. Coad, father of the late Dr. Joseph B. Coad, in the 89th year of his age.

COREY.—At Patchogue, Long Island, on Monday, July 22, of bronchitis, Bertha Louisa, youngest child of Gertrude Elizabeth and Charles Corey, M. D., aged 1 year and 19 days.

BUTCHER.—At the residence of her husband, in Mauricestown, Cumberland county, N. J., July 31, Mrs. Sallie F., wife of Charles Butcher, M. D.

FEENEY.—Gertrude Feeny, infant daughter of Dr. John L. and Emma L. Feeny, in the city of Portland, July 24, 1872.

HANNAFORD.—At Elkhart, Indiana, July 25th, of scarlet fever, Joseph Ethelbert, third child of Dr. Joseph N. and Anna M. Hannaford, aged 6 years, 10 months, and 5 days.